

THE  
**ARCHITECTURAL MAGAZINE.**

JULY, 1834.

**ORIGINAL COMMUNICATIONS.**

**ART. I.** *On the Difference between Common, or Imitative, Genius, and Inventive, or Original, Genius, in Architecture.* By the CONDUCTOR.

IN our preceding article (p. 145.), we have shown that every architect must necessarily have the power of invention; or, in other words, be a man of genius. The amateur architect may understand the art, have a love for it, and possess a good taste in its productions; but he is not supposed to possess the power of designing new buildings — that is, of displaying architectural genius.

In the infancy of all arts, the artist must have drawn his materials from nature, and created an art by the exercise of his inventive powers; but, in an advanced state of society, such as that to which we have now arrived, the artist derives his materials from the works of artists who have preceded him, and thus, as it were, works at second hand. In the former case, he must necessarily display inventive genius; and in the latter, imitative genius only.

The difference, then, between imitative genius and inventive genius consists in this; that, in the former case, the artist composes with elements already prepared to his hand by his predecessors, and that, in the latter, he forms elements of his own, and composes with them.

The architecture of all ages and countries may be reduced to two primitive elements; viz., the roof, and the prop by which that roof is supported. The kind of roof, and the kind and manner of applying the props, must have varied in different countries, according to the climate, the building materials furnished by the soil, and other circumstances; and from this difference have arisen the different manners of building, or styles of architecture, which are characteristic of different countries. Each of these styles consists of a number of parts and details; such, for example, as columns, pedestals, architraves, cornices, pediments, &c., in the Grecian style; and arches, buttresses, gables, mullions, labels, tracery, &c., in the Gothic manner. Now, an architect of the present day, in composing either a Grecian or a Gothic building, has the forms, the proportions, and all the

different details of the parts mentioned, ready fixed to his hand, and from these he proceeds to design, or compose, whatever description of structure may be required of him. It is evident that, in this case, the mental powers required of the architect are incomparably less than if he had first to invent all these details, and next to invent a mode of combining them together, so as to produce the structure required. In the latter case only would he be entitled to be considered as possessing an inventive, or original, genius.

The first grand step, in the progress of architecture, was, the fixing of the details of what are called the different orders of Grecian architecture. This done, there could afterwards be little demand for original genius in that style, till either a building was to be applied to a purpose to which it never had been applied before; or a material used in construction, which had never been so used previously. The introduction of the arch to the Grecian style, producing what may be called Roman architecture, must have been an exertion of original genius. So, afterwards must have been the invention of the pointed arch, which may be considered as the second grand step made by architecture, and which has led to all the different varieties of the Gothic style. The union of sculpture with architecture, when it first took place, must have been an exertion of original genius; and so also must have been the application of heraldry to that art, which took place during the age of chivalry. The use of painting, whether exteriorly or interiorly, must also have been at first an effort of original genius. Since architecture, whether regarded as to its different styles, or as to the different arts which have been united with it, seems thus to have exhausted all the sources of invention, it may be asked whether there is now any room for the exercise of original genius in the art. The answer is easily found from its past progress. Original genius in architecture may be called forth now, and in all future times, as it was in all past times, by the application of architecture to a purpose to which it was never before applied; by the use of a material in construction which was never before so used; and by the union of an art with architecture which never was before united with it.

In Britain, within the last century, three descriptions of structures have been introduced, which might, to a considerable extent, have called forth original genius. The first of these, in the order of time, was plant-houses, or structures for the growth of tropical plants, or the production of a summer climate during winter. Here was a purpose to which architecture had never been before applied, together with the more extensive use of a material (glass) than had ever before been made. No original genius, however, was displayed in consequence of this invention; for, as every one knows, all plant-houses merely display the forms, either of Grecian, or of Gothic architecture.

A second occasion for the display of original genius in architecture took place when cast iron was first employed as a material of construction. The most remarkable structures formed of this material have been bridges, some of which exhibit a certain extent of original genius, and others little beyond the ordinary powers of imitative composition.

The third description of structure, to which we have alluded, is suspension bridges. Here we have the application of architecture to a purpose to which it never was before applied, viz., to the pillars or towers which support the chains; and the use of a new material in bridge-building, viz., wrought iron in the forms of chains and rods, for supporting the road-ways. The suspension of the road may fairly be considered an exercise of original genius; but the supporting towers, as far as we know, have never displayed any thing more than such an adaptation of Grecian, or of Gothic architecture, as can only be considered an ordinary exertion of common or imitative genius. In some cases, indeed, even this ordinary exertion of the power of imitative composition has not been made. For example, the pillars of the Hammersmith Bridge are in the Grecian or Roman style, and consist of square columns, supporting architraves; the suspension chains passing through these pillars, under the architraves, instead of over them. Now, considering the construction of these pillars, as an imitation of the original type of wooden props supporting the beams of a roof, the intervals between these props being filled in with clay, the chains appear to have no other support than that of a mud wall. This mud wall, or filling in between the wooden props, was never intended in the slightest degree to support even the architrave; and, for an artist to employ it to support the chains, which carry the whole weight of the bridge, argues either an utter disregard, or an utter ignorance, of the spirit of Grecian or Roman architecture.

It is no defence of this violation of the imitative principle to say that the filling in is of stone, and, therefore, as strong as any other part of the pillar; for, if the imitative principle is given up, then the pilasters, and the architrave over them, are wholly without expression or meaning. In this, and every similar case, where classical architecture is employed, the chains, the support of which is the main object of the pillar, ought to have passed over the upper part of the architrave, and been carried by an appropriate description of acroter, in the composition of which the artist might have exercised his inventive powers. The whole pillar would then have been employed in supporting the chains; instead of only the most inferior and weakest part of it.

As subjects on which architects might display a degree of genius, perhaps as original as can be expected in the present improved state of all the arts, we may suggest the idea of taking

the forms of the oldest styles of Gothic and Hindoo architecture, and applying them to the composition of dwelling-houses, and furniture adapted for modern use. For example, the Norman, or circular-arched Gothic, of which there are but few specimens remaining, might be taken; and, from the forms and details already existing in that style, other analogous forms and details might be invented, suitable for all the purposes of domestic building and furnishing. From these details, partly furnished by precedent, and partly by the inventive powers of the artist, designs for houses and for furniture might be composed, totally different from any thing that has hitherto appeared. This would, perhaps, be as great an exertion of original genius as could be expected in the present age.

Before, however, any architect attempts to design even within the ordinary sphere of invention, he ought to have made himself acquainted, as far as practicable, from books and other sources, with all that has been done by his predecessors, in all ages and countries. The more richly he stores his mind with the ideas of others, the more likely will he be to bring forth new ideas of his own; for a new idea can be nothing more than a new combination of ideas which had previously existed. By making himself thoroughly master of all the ideas of others, the architect becomes, not only capable of inventing with facility for all ordinary purposes, but of inventing in what may be called a cultivated style of art, as compared with that crude style of invention sometimes seen in the productions of untutored genius.

"The inventions of cultivated genius, Dr. Browne remarks (Lect. xxxvii.), "consist in the suggestions of analogy, as opposed to the suggestions of grosser contiguity." The latter are those of the ignorant inventor, who disdains storing his mind with the ideas of others; the former, those of the highly educated artist, who has made himself master of all that has been done in his art.

This, and the three preceding articles on architecture as an art of taste and of imagination, we consider as preliminary to a series of articles, which are to follow, on the art of composition in architecture.

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#### ART. II. *On Heraldic Ornaments in Architecture.* By W. H.

IT is the aim of the professors of every art, to please those who, from their acquirements, are likely to be the best judges of their productions; and, in this attempt, the architect, if he succeeds, is generally happy enough to obtain also the praise of the public. The opinions of the great mass of society are formed by the impressions that present themselves to the senses, and it is the chief end of science to make these impressions favourable. When the attention is attracted by the appearance of an edifice, the eye is naturally struck by the decorations of its exterior;

and, from the scrutiny that is bestowed on the ornamental parts, they are riveted in the recollection; while the remaining portions of the structure are often regarded with comparative indifference. It need scarcely, then, be urged, that the importance of a proper choice and appropriation of external ornament, in architecture, is increased by the universal notice that is taken of it. This consideration has suggested the following remarks upon the application of heraldry, as displayed in sculpture on the public buildings and mansions of distinction in this country.

In the first place, it should be observed, that the intention of these displays is to perpetuate claims to the honours of ancient lineage and rights; and any view as to their symbolical details producing an ornamental effect is a secondary consideration. In complaining of this disregard to appearances, it is not, however, meant to throw any contempt on heraldry as a study, or on the uses of it with reference to history and biography.

Armorial bearings are usually very indefinite and speculative types of their real meanings; and, except by those who use them, or who have made them the subject of particular investigation, they are little understood. The illustrative emblems expressed on them are, to a great extent, composed of the representations of signs and figures that never had existence but in the imagination; and which, consequently, have no natural objects to which they can be compared. Even where animals and other objects from nature are delineated, they are in most cases in distorted attitudes and positions; and are often metamorphosed by the junction of two or more species in one. A device or composition of this sort can rarely be gratifying to the sight, unless it is clearly intelligible. The simplest imitations of familiar objects make stronger impressions on the feelings than the most original efforts of fancy. The curiosity that is excited by heraldic exhibitions cannot be gratified by confusion in details; and the admiration due to the beauties of an edifice is often deteriorated by the imperfect effect produced by that part of it which is intended to be ornamental, and which, as before remarked, is always most conspicuously offered to the view.

One of the most remarkable instances of the employment of an heraldic figure in London is that of the lion on Northumberland House in the Strand; and it is perhaps the least objectionable of all, so far as the statue is concerned, because, from its correct execution, it conveys a true conception of what it is meant for: but, on account of its striking and very conspicuous situation on the summit of the building, and from its being the first object seen, there are few beholders who retain any clear idea of the house itself, more than a general impression of the space it occupies, and that there is a lion above it. This circumstance renders it questionable, whether the lion does indeed

constitute an ornament to the architecture of Northumberland House, although it may in itself be admired. The dragons on the Guildhall of the city of London, also, not only overpower every thing else by their prominent position, but, as specimens of imaginary and hideous deformity, they do not recall any pleasing associations whatever. With only referring in a general way to the various sphinxes, satyrs, and other monsters, that are exalted in so many instances and situations, almost to the horror of the passers by, there are two cases of present date that have drawn a great share of the public gaze; viz., the hall of the Goldsmiths' Company, and that of the Fishmongers' Company. The defective locality of the former, and the bold station of the latter, together with the similarity of their uses and coinciding dates of erection, have very naturally led to many comparisons between the two. In both of these buildings, the armorial bearings of the companies are placed as conspicuously as the nature of their respective architecture will admit. In the Goldsmiths' Hall, the supporters (the figures on each side of the arms) consist of two animals, if they may be so called, having the bodies of horses and the extremities of bulls, with one horn each, from which they take their name of unicorns. In that of the Fishmongers, the supporters are two objects, having their upper halves the images, in the one of male, and in the other of female, human beings, with their lower halves representing those of fishes. There are also on both buildings sea monsters, half horses and half fishes. With respect to the workmanship or sculpture of these monsters, it is not intended here to criticise it; for, indeed, it would not be fair, even if it were faulty, to blame an artist who was required to represent things that have no prototype in nature, and in the designing and execution of which no stricter rules than those enjoined by custom were to be adhered to. Neither of the designs spoken of can give any satisfaction to those who do not know their meaning; nor is it to be supposed that those who do, can receive any sensation of delight from the inspection of monstrous forms, that must either draw forth contempt and ridicule, as where the beauty of the human proportions is partly changed to those of beasts, or produce impressions bordering on disgust.\*

There are, probably, many persons who will not agree with these opinions; but they are stated with a view of making known

\* In *Jameson's Journal* for April, 1834, it is argued that the ancients were most minutely accurate in their imitation of natural objects when they composed the fantastic creatures of their fancy; inasmuch as each of the parts employed to form the whole is, when taken separately, an accurate imitation of some thing which exists. To be convinced of this, Marcel de Serres says, we have only to glance over the remains of the purer periods of Greece and Rome, and, to a certain point, also of Egypt. Antique monuments preserve the traces of species which appear to be no longer found on the globe. — *Cond.*



the notions of all those whom the writer has ever heard converse upon the subject. That the public do sufficiently appreciate the production of really beautiful and classical sculpture on buildings, is attested by the almost unqualified approbation that several such instances, at the western part of the metropolis, and, indeed, in all the other places where they have appeared, have met with; and it is to be regretted that the taste of the public, in this particular, should be neglected, and almost abused, by the exposure of compositions to their view with so little that is classical, beautiful, or intellectual; and so much that is unsightly and unmeaning, as appears in heraldic ornaments on architecture generally.

As a defence of these animadversions on the use of monsters, the employment of the centaurs in the Athenian remains might be adduced as a precedent; and, as such, it is a very good one. But it has been pronounced, by those whose judgment in such matters is esteemed, that these should be regarded as instances of the most astonishing triumphs of art, in representing objects favourably, which would otherwise be disagreeable; and therefore this precedent must form an exception to the rule, especially when the difference of the times may in the one case give a qualification, and in the other a negative, to their propriety. There is also another circumstance that rather authorises the use of heraldry; and that is, the legislature requiring the royal arms to be seen in the churches of the established religion; and the importance of these edifices gives considerable weight to the authority. It should, however, be remembered, that these arms, though subject to similar censure, are familiar even to children; and that the intention of placing them there is altogether so national, that any want of attraction in their actual appearance is overbalanced by a friendly prejudice in the minds, and it is to be hoped in the hearts also, of those who behold them. As a concurrent fact, it might not be amiss to mention, that the national fervour or enthusiasm of a neighbouring country has led them, in many instances, to shew forth the letter N worked in bricks or stone on the fronts of houses, to their utter disfigurement, as the significant, and to them almost charm-working, initial of Napoleon.

As the tenour of the preceding observations is against the use now made of heraldry, it may perhaps be inferred that the writer wishes to exclude it entirely from architecture. This is by no means the case: these observations are only thrown out as a hint that, where buildings are publicly situated, the public have a right to comprehend what is exposed to them; and that, where heraldic ornament is attempted, it should not overpower the architectural expression of the building. Objects that are confused, or unsuitable, may as well be kept back altogether.

*London, April, 1834.*

ART. III. *A descriptive Account of the Duke of York's Monument, accompanied by Plans, Elevations, and Sections, copied from the Designs of Benjamin Wyatt, Esq., Architect.* By Mr. ROBERTSON.

THIS monument, which is now complete, and crowned with the statue of his late Royal Highness the Duke of York, forms a very striking ornament to the neighbourhood in which it stands; and, as it occupies the exact centre of the great opening from Carlton Gardens into St. James's Park, it is in a most imposing situation, whether viewed from the latter place, or from Regent Street.

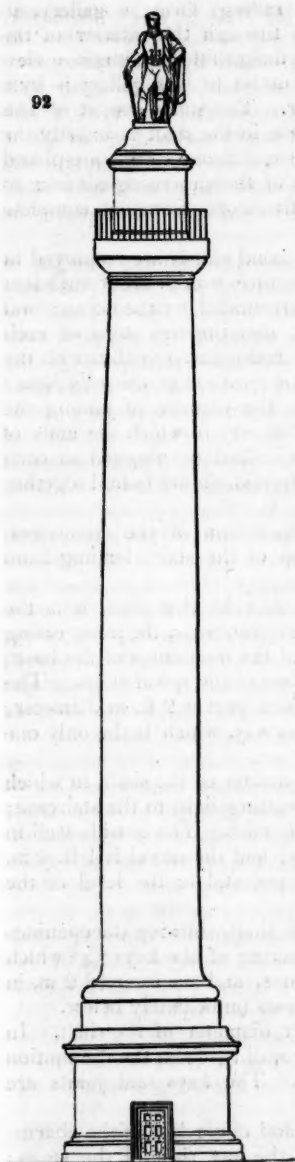
The sum collected by private subscription for the erection of this monument amounted, in the year 1829, to 21,000*l.*; and this sum was shortly afterwards (by the interest thereon, and by further contributions) augmented to 25,000*l.* In the same year the committee of noblemen and gentlemen for managing the application of the fund thus raised, invited a few of the most eminent architects to submit designs for a monument to commemorate the public services of the late Duke of York, as Commander-in-Chief of the British Army. The competitors accordingly delivered in their designs, accompanied by estimates, in the month of August, 1829; but the committee did not come to a decision on their merits until the month of December, 1830, when the preference was given to the designs of Mr. Wyatt; which designs were then finally adopted. The monument was erected by Mr. Nowell of Grosvenor Wharf, Pimlico, who was under an engagement to complete it in every respect, with the exception of the statue, within a period which should not exceed two years, and for the sum of 15,760*l.* 9*s.* 6*d.* He completed his task in about one year and eight months; and he has certainly done it in a most substantial and workmanlike manner.

The architect and builder were put in possession of the ground on the 25th of April, 1831; the excavations commenced on the 27th of the same month, and they were finished in twenty-eight days. These excavations were dug to about 22 ft. below the general surface, in order to obtain a solid stratum of natural earth; and an artificial foundation was then formed by a large body of concrete, of sufficient magnitude to fill up the excavation, and of sufficient solidity to sustain the superincumbent weight of the monument. This artificial foundation was in form the frustum of a pyramid, covering a space of 2809 superficial ft. at its base, and having a surface of 900 superficial ft. at the top.\* A course of Yorkshire stone slabs, 7 in. in thickness, was laid all over the surface of the concrete when brought up the half of its height, that is, at 11 ft. 6. in. above the level of its base

\* The concrete was brought to its proper line of inclination by means of boards fixed at each of the four angles, and lines occasionally strained from one angle to another; and the concrete, when once brought to its proper position, firmly retained that position.



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line, in order to equalise the pressure from above; and a second course of stones was, for the same purpose, laid upon the top of the body of concrete. This foundation, which was laid on the 25th of May, 1831, was finished on the 25th of June; and in three weeks afterwards the masonry was commenced; for by this time the concrete had become as compact and solid as if it had been a natural rock of granite.

The masonry was begun by a course of rough granite being laid on the top of the Yorkshire stone slabs; and the pedestal, which is 16 ft. 8 in. in height, and consists of ten courses, is built of the famous Aberdeenshire grey granite. The capital and base of the column are also of grey granite, but of a darker tone of colour than that of the pedestal: the shaft of the column, and the acroter or upper pedestal, are built of Peterhead red granite. The shaft, from the top of the base to the bottom of the capital, consists of twenty-six courses: on the west side there are seven apertures, and on the east side six, for the admission of light to the staircase. The column, which is of the Tuscan order, is 94 ft. 4 in. in height, including the base and capital: the inferior diameter is 10 ft.  $1\frac{3}{4}$  in., and the lower diameter is 11 ft.  $7\frac{1}{2}$  in.; so that the proportion of the column is fully eight diameters. The acroter, which is 12 ft. 6 in. in height, and consists of seven courses, forms at once a covering to the staircase, and a pedestal for the statue to stand on.

The upper bed of the abacus (on the outer edge of which there

is fixed a plain substantial iron railing) forms a gallery, to which we ascend by winding stairs through the interior of the column; and from which there is a delightful and extensive view of the surrounding scenery: the outlet to this gallery is by a door in the east side of the acroter. The stairs consist of 168 steps of 2 ft. 4 in. wide: each course in the shaft is exactly the height of five steps; and these five steps in one course are placed alternately at right angles to those of the preceding course; so that four stones, each containing five steps, form one complete round of the staircase.

From the manner in which the bond stones are employed in the shaft of this column, the structure would be of sufficient strength even for a lighthouse surrounded by the ocean; and this peculiarity of construction is, that the five steps of each course, as well as the newel or central pillar, together with the stone which forms the outer wall, *are cut out of the solid block!* This circumstance (in addition to the manner of joining the courses by dovetailed keys, and the way in which the ends of the steps that form the newel are spiked or plugged to each other) shows that the courses of the column are bound together in the most substantial manner.

*Fig. 92.* is a geometrical representation of the monument. The entrance, which is at the top of the stairs leading from the Park, fronts the south.

*Fig. 97.* is a plan of the pedestal. In this plan, *a* is the entrance; *b*, the outer casing of grey granite; *c*, the inner casing of red granite; *d*, the projection of the mouldings of the base; and *e*, the situation of the first riser of the spiral stairs. The newel of the staircase in the pedestal part is 2 ft. in diameter; and there is a landing over the doorway, which is the only one there is in the whole height.

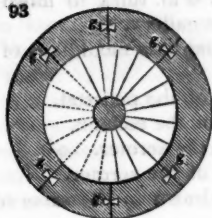
*Fig. 98.* is a plan of the lower diameter of the shaft, in which are seen the aperture (*f*) for admitting light to the staircase; and the dovetailed keys (*g*) at each joint. The outside wall in this plan is 2 ft. 7 in. in thickness; and the newel is 1 ft. 6 in. in diameter, from the top of the pedestal to the level of the gallery.

*Fig. 95.* is a vertical section of the shaft, showing the openings for admitting light (*f*); and a section of the keys (*g*) which pass down through the whole course, and are inserted 2 in. in the middle of the stones of the courses immediately below.

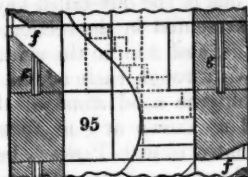
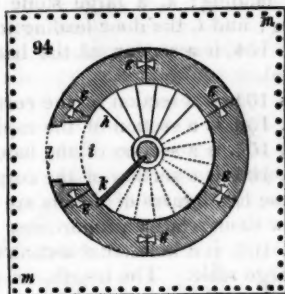
*Fig. 93.* is a plan of the smaller diameter of the shaft. In this plan the thickness of the outer wall is, from the diminution of the column, only 1 ft. 10½ in. The keys and joints are shown at *g*.

*Fig. 94.* is a plan of the acroter and upper bed of the abacus. In this plan *h* is the situation of the last riser of the stairs;

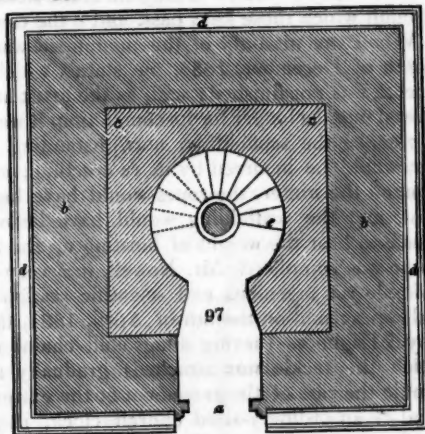
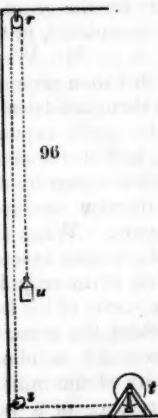
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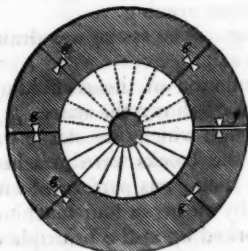
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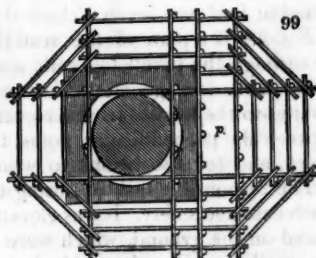
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*i*, the landing; *k*, a large stone slab 4 in. thick to finish the landing; and *l*, the door leading to the gallery, *m*.

*Fig. 104.* is a section of the base and base mouldings of the pedestal.

*Fig. 101.* is a section of the cornice of the pedestal.

*Fig. 100.* is a section of the capital of the column.

*Fig. 105.* is a section of the base of the acroter.

*Fig. 103.* is a section of the cornice of the acroter.

These five figures of details are all drawn to the same scale, to show their relative proportions.

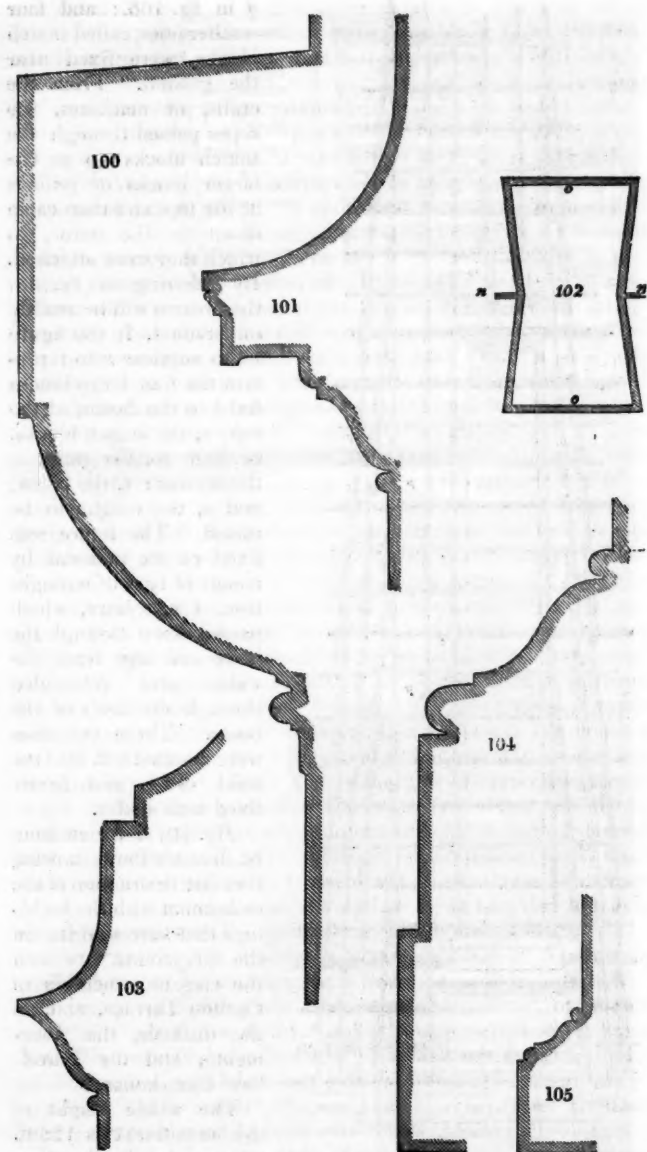
*Fig. 102.* is a horizontal section of one of the dovetailed keys, on a large scale. The length, as represented in the section, is  $7\frac{1}{2}$  in., the width 4 in. at the two ends, and 3 in. in the centre. In a vertical direction they pass down through each course of the shaft at every joint, and 2 in. into the solid stone of the course below, as before observed, and as shown at *g* in *fig. 95*. They are of Yorkshire stone, and grouted in with Parker's best cement. In *fig. 102.*, *n* is the joint in the stones of the outer wall, through which those keys pass, and *o* the cavity for the grout.

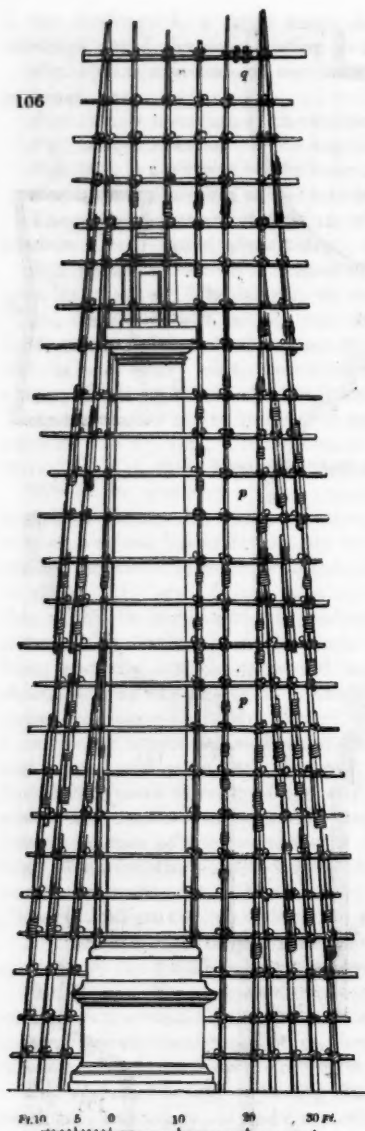
When the masonry of the monument was completed, in the month of December, 1833, the statue, which is by Mr. Westmacott, was not finished; and, as the artist at this time required several months longer for its completion, it was thought advisable to remove the scaffolding, notwithstanding the great expense that would be incurred by its re-erection; as, had it remained through the winter, the ropes would have become rotten by the frost, and the scaffolding would have been thereby rendered unsafe to bear the weight of hoisting up the figure. When the statue was completed, Mr. Nowell, in a very short time, erected a simple yet ingenious and scientific scaffolding of mere poles and ropes; and on the 8th of April, 1834, the statue of his late Royal Highness (having slings and chains round the arms, to which the tackle was attached) gradually ascended at about double the rate of the movement at the extremity of the minute hand of an ordinary-sized church clock, in presence of a vast number of spectators. The hoisting up of the figure was completed at half past seven o'clock the same evening.

*Fig. 99.* is a plan of the scaffolding. The statue was drawn up through the parallelogramic space at *p*.

*Fig. 106.* is a geometrical representation of the scaffolding, looking to the west. In this elevation are shown the space (*p p*) between the perpendicular poles, through which the statue was raised, and (*q*) the beams to which the blocks were attached.

The responsible task of raising the statue was performed with much ease and safety. It was elevated by means of four machines placed on the ground, which were worked upon the principle of the windlass. Four large blocks were attached to the beam at



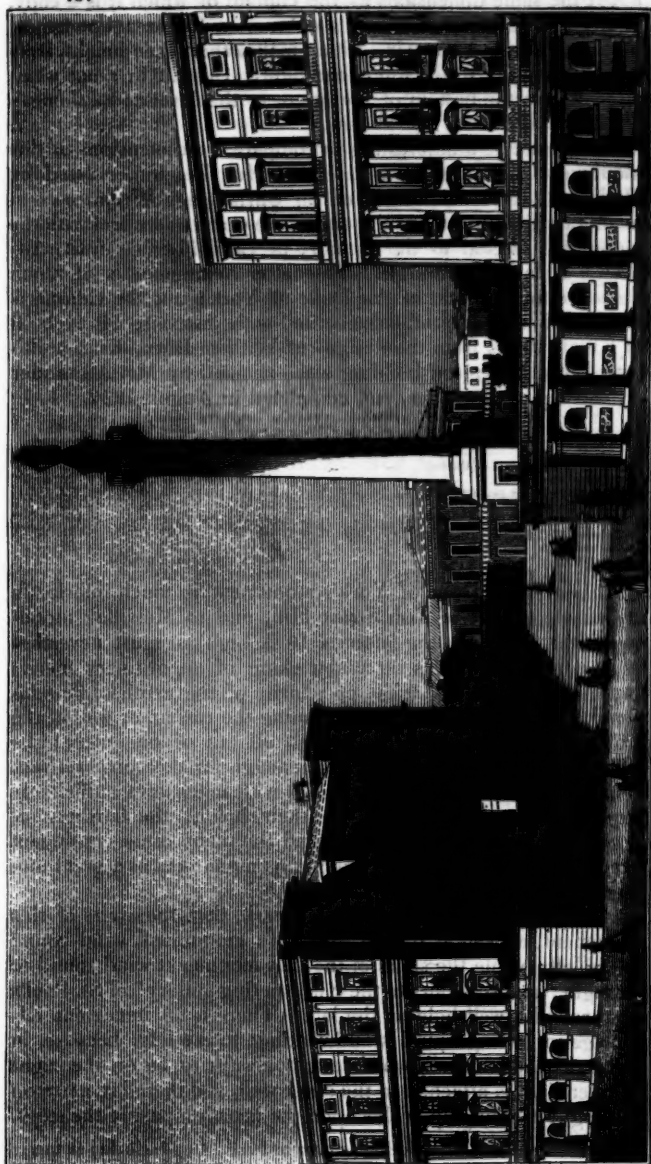


$q$  in *fig. 106.*; and four smaller ones, called snatch blocks, were fixed near the ground. From the crabs, or machines, the ropes passed through the snatch blocks up to the larger blocks or pulleys at the top, and then came down to the statue, to which they were attached. By referring to *fig. 96.* the process will be readily understood. In this figure let us suppose  $r$  to represent the four large blocks fixed to the beams at the top;  $s$ , the snatch blocks, or four smaller ones, at the bottom;  $t$ , the crabs; and  $u$ , the weight to be raised. The figure was fixed on its pedestal by means of bars of wrought iron, 4 in. square, which passed down through the body and legs from the waist, and protruded through the heels of the boots. These two bars were inserted 2 ft. into the solid stone, and firmly fixed with solder.

*Fig. 107.* is a view from St. James's Park, showing the relative situation of the monument with the buildings that surround it. In the foreground are seen the elegant structures of Carlton Terrace, and, in the distance, the Athenæum, and the Travelers' Club-house.

The whole height of this monument is 123 ft. 6 in., and it is therefore





about the same dimensions as the column of which it is a copy, namely, the celebrated Trajan's column at Rome. The height of the statue is 18 ft. 9 in., which makes the whole height, from the ground line to the top of the figure, 137 ft. 3 in.; but when viewed from the bottom of the steps, at the level of St. James's Park, the altitude is 155 ft. 3 in.

It may not be uninteresting to compare the dimensions of this monument with that of Fish Street Hill, London, erected by Parliament from the designs of Sir Christopher Wren, to commemorate the burning of the city in the year 1666; and with the monument erected to the memory of Lord Melville in St. Andrew's Square, Edinburgh. This latter monument is of much the same form as that of the Duke of York; but the column is fluted, and the pedestal ornamented with festoons. It is built of Killala stone, from the designs of William Burn, Esq., architect, Edinburgh; the building was executed by Mr. Alexander Armstrong of that place, and completed in August 1832.

	City Monument.		Duke of York's Monument.		Melville's Monument.	
	Ft.	In.	Ft.	In.	Ft.	In.
Height from the ground to the top	202	0	137	9*	122	7*
Diameter of the column	15	0	11	7†	12	2
Circumference of the pedestal	128	0	75	0	72	0
Height of the pedestal	40	0	16	8	18	4
Height of the gallery from the ground	170	0	111	0	180	10
Height above the gallery	32	0†	23	6‡	31	9‡
Number of steps in the stair	365		168		196	
Time taken in building	6	years.	1	year 8 months.		

Although the Duke of York's monument is much inferior in magnitude to that of Fish Street Hill, and to Melville's monument (the statue on the latter is 18 ft. high), it must nevertheless be looked upon as an undertaking of no ordinary merit: for, whether we consider the peculiarity of the artificial foundation; the successful method of forming the casing, or wall of the staircase, the steps, and the newel, all out of one piece; the difficulty of procuring blocks large enough for this purpose from Scotland, and that of finding vessels with hatchways sufficiently large to admit these blocks into their holds; the hardness of granite to work with the chisel; and the many other contingent circumstances; we must look upon this monument as a great and magnificent work.

It may be worthy of a passing remark, that the stairs of this monument, as well as that of Melville's monument, wind round to the left; while the stairs of the City monument wind round to the right; and the stairs to the "whispering gallery" of St. Paul's wind round a well-hole on the left. There is an important advantage in having spiral stairs winding to the left; because, in that case, the handrail, which ought always to be on the right in ascending, is attached to the outer wall, and therefore a person holding it in going up, walks upon the broadest part of the steps.

\* Including statue. † Including blazoned urn. ‡ Including statue.

The contemporary press seems to consider, with reference to the statue, that the figure is too clumsy, and that Mr. Westmacott has fallen into an error by associating the order of the Garter with boots and cuirass belonging exclusively to cavalry uniform. I shall leave this part of the subject to be decided by competent judges, and content myself by remarking, in conclusion, that I think the gentlemen of the committee have fully discharged their duty, and that they have been singularly fortunate in selecting an architect so eminently qualified to furnish the designs for this noble structure, and a builder who thoroughly understood those designs, and worked up to them in a tradesman-like manner.

The monument was opened to the public on Wednesday the 23d inst., at 1s. per head; and I understand that the funds which will be thus raised are to be applied to the relief of the widows and orphans of soldiers.

Bayswater, April 26. 1834.

J. ROBERTSON.

#### ART. IV. *Architectural Maxims.*

*IN Bookcases, Wardrobes, and all similar articles, the space between 3 ft. and 7 ft. from the ground is all that ought to be appropriated to shelves; as it is only between these points that a person can conveniently reach any thing. All above and below these points, if it is used at all, should be cupboards for bulky articles seldom wanted.—T. W.*

*Doors should be hung on the side nearest the fire, whether they are in the same wall, or at right angles with it; otherwise they will draw out the smoke every time they are used.—T. W.*

*Unity of Forms and Lines.*—In every building, in order to preserve unity of expression, there ought not only to be prevalent the same forms, but the same character of lines. In correctly Grecian architecture, the forms extend in length, the prevailing lines are horizontal; in the Pointed style, the forms exceed in height, and the prevailing lines are perpendicular to the horizon; in Roman architecture when the arch is introduced, in the Anglo-Norman style, and in the Elizabethan manner, there is, or ought to be, a harmonious combination of horizontal, perpendicular, oblique, and curvilinear lines.

*Congruity of Forms.*—When two forms totally different, as a circle and a square, are unavoidably placed together, unless the one is a great deal smaller than the other, they will never form a whole.

*Effect of Habit on the Taste and Judgment.*—A vicious combination may become tolerable, and even satisfactory, by long habit; for example, the barn-like form of the body of a church, and its tower or spire.

## REVIEWS.

**ART. I.** *A Series of Discourses upon Architecture in England, from the Norman Era to the Close of the Reign of Queen Elizabeth; with an Appendix of Notes and Illustrations, and an Historical Account of Master and Free Masons.* By the Rev. JAMES DALLAWAY. 8vo, 447 pages. London, 1833. 14s.

MR. DALLAWAY is advantageously known to the public by several works on architecture and sculpture, which evince, on his part, an ardent love of those arts, and great knowledge as an architectural antiquary. The work before us consists of six discourses; the first four of which relate to the Gothic architecture of churches and cathedrals; the fifth, to military architecture; and the sixth, to Tudor and Elizabethan architecture. The appendix contains collections for an historical account of master and free masons.

From the above outline of the contents of this volume, our readers will conclude that it is replete with interesting information on the subjects on which it treats, and we only regret that our necessarily limited space prevents us from either giving an analysis of the work, or such extracts from it as will confirm them in such a conclusion. The work is characterised by an accumulation of facts, rather than by arguments or speculations; and on that account it is the more valuable for the purpose of enabling the young architect to form correct historical ideas on the subject of the Gothic style. No young architect ought to stop short in the acquirement of architectural and antiquarian knowledge, till he can refer every church, cathedral, or old mansion, which comes in his way, to its precise era. For want of this knowledge, we frequently find architects, even of reputation and extensive practice, committing anachronisms in the Gothic style, by placing in the upper story of a building details which belong to a period antecedent to those employed in the lower story. This departure from the order of time, though it may escape detection by general observers, and even men of a good general taste, is yet exceedingly offensive to those who are so far enlightened as to see in it a deviation from truth and propriety.

In the discourse on military architecture, there is more curious information than might be expected respecting a style which, as far as its original uses are concerned, may be considered as long since extinct. This style is classed as—1. Saxon or Roman; 2. Anglo-Norman, from 1070 to 1170; 3. Norman, from 1170 to 1270; 4. Style of the Crusaders, introduced by Edward I. in 1272; 5. Style of Windsor Castle, by Edward III., 1350 to 1400; 6. Style of the fifteenth century, 1400 to 1480; and, 7. Castles in the reigns of the Tudors. Lists are given of the castles belonging to each of these classes; and, as most of them

are delineated in published works, the student who has access to the British Museum may, with far less trouble than might at first sight be imagined, make himself master of the peculiarities of each particular class. Here, then, is a fine opportunity for an architect to display inventive genius on the principle before laid down in our Essay on the subject. (p. 185.) We invite young artists, therefore, to compose seven different designs for small villas in the seven styles of castle architecture above enumerated; including, for each particular design, all the interiors, fittings-up, and furniture which ought to belong to it. Had we seven cottages to build in seven different situations, in a mountainous country, and were not limited as to expense, we would build fragments of castles, of seven different styles, above enumerated; and to each fragment we would add the rooms requisite to form the cottage. These rooms, with their roof, should, of course, be in some of the various modern styles, so as to form a contrast with the style of the castle: at the same time the cottage should be so subordinate as to unite with the ruins of the castle in forming a whole; and ivy, and creepers, and trees, might be employed to harmonise the composition.

Discourse VI. is on the Tudor style, and the architecture by which it was succeeded, until the close of the reign of Queen Elizabeth. The Tudor style commenced with the fifteenth century, and exhibits vast mansions, in which the characteristic style of the castles of the preceding age "was not entirely abandoned, but superseded and mixed up with a new and peculiar manner." This style was neither ecclesiastic nor military, but something between both. A great number of small rooms were formed, for lodging a multitudinous household; and some of an enormous size, for a display of hospitality; but there were very few arrangements either for comfort or convenience. This style began to undergo variations under Henry VIII., by Holbein, at once an architect and a painter, by the introduction of the Roman style, and the modifications of it adopted in France. It was further changed, during the reign of Elizabeth, by the introduction of the Italian ornaments and designs of John of Padua. John Thorp was the most celebrated architect of this reign; but Mr. Dallaway gives the names of nine others, all eminent. This discourse is full of data on which to study the characteristics of this, now the most fashionable and prevalent style of old English domestic architecture.

The historical account of master and free masons abounds in curious matter. The author investigates, "I. The various designations of master masons, and their associates and operatives, which may be authenticated either from their epitaphs, in the magnificent structures where they had sepulture, or from the contracts with patrons and supervisors. II. An enquiry into

the true claims of ecclesiastics, with respect to their having been the sole designers, or architects, of cathedrals and their parts, exclusively of the master masons whom they employed, and who were required only to execute plans already allowed them. III. Of architects who practised in England, during the middle ages, concerning whom documentary evidence is adduced in a series." (p. 411.)

But we must conclude our remarks; having, we trust, said enough to show that Mr. Dallaway's *Discourses* deserve a place in the library of every reading architect.

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ART. II. *The Domestic Architecture of the Reigns of Queen Elizabeth and James I., illustrated by a Series of Views of English Mansions, with brief Historical and Descriptive Accounts of each Subject.* By T. H. Clarke, Architect. Royal 8vo, 24 pages; 20 lithographic plates, and 2 woodcuts. London, 1833. 1l. 1s.

THE Elizabethan style of building, Mr. Clarke informs us, in his preface, "is much better adapted for country residences than any other; being much less expensive in the arrangement and decoration. What," he asks, "can be more suitable characteristics of an English mansion, than a noble picture or banquet gallery, spacious staircases and halls, and windows admitting an abundance of light and air?" In these sentiments most architects, we believe, will concur, as we do most heartily; and, it necessarily follows, that we highly approve of the design of the work before us. We regret, however, that we cannot say much in favour of its execution. The lithographic plates convey a tolerable idea of the effect of the different buildings exhibited, but they are not sufficiently distinct to enable us to make out any of the details. With respect to the descriptions, though the author states, in the titlepage, that they shall be "brief," yet we did expect something more than merely three or four lines, as in some instances; or even a fourth of a page, which exceeds the extent to which most of the notices are carried. In some instances we are merely told the name of the county in which the building was erected, and left to discover what part of the county it may be situated in, and even whether it does still exist, or has been destroyed, as is the case with some of the mansions, views of which are here given. The author might very well have filled up two pages with descriptive and historical particulars of each design, accompanied by outline engravings on wood of the various details of each. The work would then have been of very great value to the architect in a scientific and practical point of view, and would have lost none of its attractions to the general reader, as a book of picturesque architectural scenery. We strongly recommend the author to take these



remarks into consideration, when his work comes to a second edition.

The subjects illustrated are:—Wimbledon House, destroyed early in the 18th century; Eaton Lodge, Aston Hall, Grafton Hall, Stanfield Hall, Beckford Hall, Bromshill House, Fenn Place, Queen's Head, Chastleton, Bereton Hall, Holland House, Houghley House, Streete Place, Montacute House, Westwood House, Wakehurst Place, Carter's Corner, Eastbury House, and East Mascall, all lithographs; and the south front of Eastbury, and an old house near Worcester, woodcuts.

We have been most gratified with a view of Montacute House, and with the descriptive notice of it, which is decidedly the best in the work. We shall quote it entire; premising that many of the houses built during the reign of Henry VIII., had the form of the letter H for a ground plan, in compliment, as it is supposed, to that king; and the plan of Montacute House shows that the same compliment was paid to Elizabeth. This mansion was erected in Somersetshire, "between the years 1580 and 1601, by Sir Edward Philips, sergeant at arms to Queen Elizabeth. The cost of its erection is said to have amounted to nearly 20,000*l*. The form of the plan is that of the letter E, intended, perhaps, by Sir Edward as a mark of respect to his royal mistress. The house is built of stone found on the estate, of a rich brown colour, ornamented with gables, a balustrade, pinnacles, and enriched cornices. Between each window of the second story are niches, occupied by figures in ancient costume; the chimney shafts present columns of the Doric order. On the central compartment are the arms of the family, and over the entrance is the following inscription, dictated by the true spirit of old English hospitality:—'Through this wide-opening gate, none come too early, none return too late.' The building, which is 92 ft. high, is divided into many and spacious apartments, among which is a magnificent banquet gallery, 189 ft. long, and 21 ft. wide." (p. 19.)

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ART. III. *Observations, by Alexander Trotter, Esq., of Dreghorn, in Illustration of his modified Plan of a Communication between the New and the Old Town of Edinburgh.* 4to, several plates. Edinburgh, 1834.

MR. TROTTER is well known in Scotland as a gentleman much attached to architecture, and as one who has paid great attention both to territorial and municipal improvements. For several years past, he has bestowed particular attention on the means of improving the city of Edinburgh, and especially of forming a more convenient and elegant line of connection between the old town and the new. Mr. Trotter has spared neither labour nor

expense in making his ideas on this subject known to the citizens of Edinburgh, by engraved plans, views, &c. In 1828, he printed *A Plan of Communication between the New and the Old Town of Edinburgh*, accompanied with six large folding plates, besides detailed engravings in folio. A second edition of this work was published in 1829; and, after a great deal of discussion, some of Mr. Trotter's plans being thought too expensive, he prepared and published those which form the subject of the work, the title of which stands at the head of this article.

It is highly gratifying to us to observe how very general the spirit of improving towns is in almost every part of the island; and certainly, with reference to Edinburgh, the changes which have taken place there during the last fifteen years appear to be greater, in proportion to the size of the city, than those which have taken place within the same period in London. With respect to Mr. Trotter's plan, we have not a sufficiently distinct recollection of the streets and public buildings of Edinburgh to speak of it in detail; but, from the bare inspection of the delineations, we can state, that, in the alterations proposed, great and obvious leading principles are kept in view. For instance, easy communication between the city and the country; easy intercommunication within the city; broad streets; and open spaces round all public buildings. These are principles, the application of which was nowhere more wanting than in the old town of Edinburgh; and though (if they were applied to the extent proposed by Mr. Trotter) the character of that crested ridge of old dusky buildings, which forms the principal feature of "Auld Reekie," would be in a great measure destroyed, yet this is as nothing when compared with the convenience and magnificence which it would produce. It is ridiculous to suppose that the distinctive character of the old town can be kept up, and the modern improvements of which such a town is susceptible introduced. Crowdedness, darkness, and filth are the characteristics of old towns; open airiness, light, and cleanliness, of new ones.

There is one circumstance in Mr. Trotter's plan, respecting which we have some doubts; and these doubts could only be removed by local inspection. It appears to be an object with Mr. Trotter to reduce the surface of the Earthen Mound to a level, or nearly so, from one end to the other; probably in order that it may serve as a base line to the views of the Castle from Prince's Street. But to reduce the Mound to a level requires two distinct degrees of acclivity (from B to L in the plan), in the street which is to connect Prince's Street in the new town with the High Street in the old town. The acclivity in a part of this line will be 1 in 15; while, on the Mound, it will be 1 in 20. Now, instead of lowering the Mound at one end, we should prefer either retaining it at its present height (by which means the

ascent of the second rise would be reduced to nearly 1 in 19), or raising it sufficiently to render the whole slope, from the Institution on the Mound to St. Giles's church, one plane of the same acclivity in every part. No effect or beauty, in our opinion, should ever be attempted at the expense of permanent convenience. This is the only doubtful point that we have, with respect to Mr. Trotter's modified plan.

The next point on which we have to offer a few remarks is, the mode in which the two valleys between the new town and the old are proposed to be planted. According to Mr. Trotter's engraved views, these hollows, which are, "in most parts, between 30 ft. and 40 ft. below the level of Prince's Street," are shown as planted with timber trees, or trees of a timber-like size. Now, we contend that, whether with respect to the salubrity of the two valleys, or to the beauty of the scenery to be produced in them, the articles planted should be chiefly low shrubs. These valleys have no natural outlet; the upper one being dammed up by the Mound, and the lower one by a market and other buildings close to the North Bridge. Unless, therefore, the sun and the wind are freely admitted, to dispel the exhalations which will unavoidably accumulate in these basins, they cannot fail to prove reservoirs of malaria. That the beauty of the scene would be incomparably greater if it were planted in such a manner as to be looked down on, both from the old town and the new, as two grand panels of vegetation, is perfectly clear to us; though we have not room to enter into such details as may convince those who are of a different opinion. By clogging up these two hollows with high trees, they will be rendered useless to the inhabitants as places of air and exercise; and the distinctive character of the localities of the old town and the new will be destroyed.

#### MISCELLANEOUS INTELLIGENCE.

##### ART. I. Foreign Notices.

##### ITALY.

A *SUSPENSION BRIDGE* has been thrown across the river Garigliano, on the high road from Naples to Rome, where, for a long time, a miserable ferry was the only means of conveyance. It is 230 ft. in length, and cost 75,000 ducats. (*For. Quar. Rev.*, May, 1834, p. 471.)

*The Roads in the Kingdom of Naples* have become an object of increased attention on the part of the government. They are divided into three classes: the royal roads, which are maintained at the expense of the treasury; the provincial roads, for which 1,000,000 ducats are paid by the communes. Meantime manufactures are spreading very fast over the kingdom. From all this, it appears that that beautiful country is not so stationary and indolent as many people are apt to suppose, because they seldom hear any tidings from that quarter. (*Ibid.*)

## TURKEY.

The sultan has ordered the erection of a building on a larger scale at Constantinople for the manufacture of great guns, on the principle practised at His Majesty's arsenal at Woolwich, from the designs and under the superintendence of Mr. William Barlow, a talented young English architect and engineer, who has been at Constantinople for some time past, making all the necessary arrangements for commencing the same. — *W. J. S. Clapham, May, 1834.* A school of architecture has also been established by command of the sultan. (*Galignani's Messenger.*)

## ART. II. Domestic Notices.

## ENGLAND.

*At a Lecture on the Pyramids of Egypt*, at the Royal Institution, some weeks ago, which we had the pleasure of attending, not only models of the pyramids, but specimens of the stone of which they are composed, were produced. This stone is a soft calcareous agglutination of shells; and not granite, as many erroneously suppose, from the circumstance of the Egyptian columns, obelisks, and statues being chiefly of that material. At the same meeting, models of several obelisks were exhibited, in one of which might be remarked the great beauty and unity of effect produced by the pedestal of the obelisk having sides sloping in the same plane as the sides of the upper part; or, in other words, of the pedestal being a frustum of a pyramid, of which the upper part was also a frustum, the continuation being broken by the narrowing of the upper part of the pedestal.

*A Course of Lectures on Civil Engineering* is now delivering at the London University, by Dr. Ritchie, which, it appears to us, well deserves to be attended by young architects. Besides the subjects of strength and stability, the pressure of water, its force in motion, its velocity in pipes and rivers, &c., the motion of air in tubes and in chimneys, and warming and ventilating, form part of the course.

*The personal Friends of the late eminent Civil Engineer, Mr. Thos. Tredgold*, have set on foot a subscription for his orphan children; who, since their father's death, have lost their mother; and, in addition to this, their eldest sister, who acted as a mother to the younger children, has lately died. Thos. Telford, Esq., the president of the Institution of Civil Engineers, is at the head of this subscription; which, we are sure, will command the attention of all who know any thing of Mr. Tredgold's character.

*Tothill Fields Prison, May 23.* — We were shown over this building by its architect, Robert Abraham, Esq., attended by his clerk of the works, Mr. Buller. Every part of the prison, its uses, and the mode of its construction, was minutely pointed out, and described to us; and the impression left on our minds by the whole is, that it is one of the most perfect prisons that has ever been erected. The outline of the ground is irregular; but that of the court-yard, which is surrounded by the prisons, is an octagon. The entrance is from the south side, directly opposite to which is the governor's house; to the right of the court-yard are the prisons for females, and to the left those for males. The back part of the governor's house is semicircular; exterior to which there is a semicircular platform, and, beyond that, parallelogram prisons radiating outwards, with yards between. The governor, from his back rooms, can see into all these yards and prisons; and, on the ground floor, there is an admirable contrivance for the turnkeys to see into all the prisons and yards without being seen by the prisoners, which reminded us of the plan for a Panopticon workhouse or prison, by Jeremy Bentham, which was carried into execution by his brother, the late General Bentham, by desire of Catherine II., in Petersburg, and which we saw there in 1813. The various arrangements for

classification, separation, security, warming, ventilation, cleanliness, and inspection, are as admirable as are the details of execution. The whole is fire-proof. The work was performed by contract; the different parts being contracted for separately by different contractors. For example, the entrance iron gate is by one contractor, and the inner gate by another. The work could not be better executed than it is; and, what is remarkable, and proves the profound study of the subject, and practical skill of Mr. Abraham, is, that the cost, so far from exceeding the estimate, as is almost always the case, falls short of it some thousand pounds. This prison does the greatest honour to Mr. Abraham; and we hope that, for the good of the public, he will publish the plans of it at large, with all their various details, descriptions, and specifications. Many of the details are original, and most ingenious. There is a fine panoramic view from the roof of the chapel, which is over the governor's house; and we could not help remarking, when looking from it to the towers of Westminster Abbey, how many architects there are who could erect an equally sumptuous cathedral, and how few there are who could contrive and execute such a prison; the effort in the one case is chiefly imitation, but in the other it is invention.

*Cheshire.*—The spire of a church which had deviated from the perpendicular 5 ft. 11 in., and was split several inches apart a long way up the centre, has lately been set straight and reunited by Mr. Trubshaw. The spire was built on a naturally sloping situation; and its weight is estimated at about 1500 tons of stone. In all sloping situations, the lower side (whether of churches, towers, houses, or even walls or roads, unless the foundation be rock), has a tendency to give way first; but more especially when the foundation, as in this case, was of two different kinds of subsoil. On the upper or fast side of the spire, the ground underneath was of slaty marl; while that on the lower side of it was of a sandy marl. Mr. Trubshaw, after examining well the outside of the foundations, commenced digging down the inside. After having got below the level of the footings (lowest stones of the foundation), he "proceeded to bore a row of auger-holes clear through under the foundation of the high side, the holes nearly touching each other. These holes he filled with water; and, corking them up with a piece of marl, let them rest for the night. In the morning, the water had softened the marl to a puddle; and the building gradually beginning to sink, another row of holes were bored, but not exactly so far through as the first row. They were filled with water as before; and the high side not only kept sinking, but the fracture in the centre kept gradually closing up. This process was continued till the steeple became perfectly straight, and the fracture imperceptible. (*Weekly Dispatch*, April 7.)

*Kent.*—The town of Dover, which is so romantically situated at the extremity of a valley between two important fortifications which rise majestically above it, has become this summer one of the most attractive places on the coast. The consequence which it has attained, not only as a port, but as a place of fashionable retirement, is likely to be much increased from the extensive improvements which are going on in all parts of the town. Amongst the first of these is the harbour, which for years past has been subject to an accumulation of beach at its entrance. This is to be removed by means of the back water, which is to be brought in immediate contact with it by means of a noble tunnel of brickwork, 30 ft. wide and 16 ft. high, and at its extremity diverging into several branches of iron pipes 7 ft. in diameter, which can be discharged in any direction as the situation of the bar may require. A quay wall of masonry, 300 ft. in length and 25 ft. high, is also in progress; which, together with the excavation, and other works connected therewith in progress, renders it peculiarly interesting to the scientific observer. A new church, called the Holy Trinity, in Stroud Street, near the Bank, is becoming an object of attraction: it is a Gothic edifice, and its principal elevation next the street is to be of stone, with pinnacles terminating the body and aisles. This building will be completed in the course of a year. A new crescent fronting the sea, forming three groups of buildings, from a design of

P. Hardwick, Esq., of London, is about to be erected by some spirited individuals in the town: when completed, a carriage drive and a fine walk will be formed, encircling the bay, and affording to the visitors and townspeople one of the most delightful promenades in the kingdom. The want of a good approach to the town coastwise has long been felt, but this is now about to be remedied: a wide and handsome street has been built, leading from the bottom of the castle hill towards the market-place, and is soon to be thrown open to the public. That old relic of antiquity, the *Maison Dieu*, has lately been disposed of by the crown; and it is much to the honour of the corporation that they have made arrangements for securing the preservation of this ancient structure, which forms a striking object on entering the town. This building, like many others, was probably erected at different periods, from the style observed in its several parts; but the alterations which it has undergone, since it has been in the possession of the crown, have so mutilated it, that it is now almost impossible to ascertain its original form. The project of the railway from London to Greenwich being continued to Dover, is much talked of. Plans and a prospectus are now before the public; and it is to be hoped that ere long this grand undertaking will be in progress; thus giving to this town another important advantage, which its natural situation so justly entitles it to. — *W. H. Dover*, June 5. 1834.

*Norfolk.*—*Boring for Water at Diss.* Some well-borers, under the direction of Mr. David Greenley of Northampton Square, London, have been for some months engaged in boring a well at Messrs. Taylor and Dyson's brewery, at Diss, in Norfolk; and have succeeded in obtaining an abundant supply of pure water, at a depth of upwards of 600 ft. from the surface. The well was sunk, a few years ago, for the purpose of supplying the brewery with water; but, in consequence of the immense quantity of sand continually rising whenever the pumps were worked, it has been almost useless. Many efforts had been made by different well-sinkers to deepen the well and get rid of the sand, without success, the sand rising as quickly as dug out: but Mr. Greenley has conquered all difficulties, and obtained an abundant supply of pure water. We have conversed with Mr. Greenley on boring for water, and he has promised us a paper on the subject. We are persuaded that, if the facility with which water may be procured by boring, in many situations, were better known to builders, Artesian wells would be much more generally in use.

*Somersetshire. Bristol.*—*The Elements of Beauty and Deformity* were discussed in a lecture delivered at the Mechanics' Institution, Bristol, April 22., by John Withers, Esq. The object of this lecture was to point out the radical forms of those objects which we are accustomed to consider beautiful, or the contrary; and to assign reasons why certain forms should produce certain emotions. The various previous theories of beauty were briefly adverted to; and Mr. Withers endeavoured to prove that beauty was in all cases the result of "harmony and subordination in variety." (*Bristol Mercury*, April 26. 1834.) We are much gratified at hearing of lectures of this kind being delivered to mechanics; because we feel confident that, by infusing good taste into this class, whether those of the workshop or of the garden, the general taste of the country will be most effectively improved. We intend to have, in every Number of this Magazine, at least for a considerable time, an article on some department of taste as a science, so as ultimately to render every thing respecting taste and beauty familiar to every reader. In the mean time, we have applied to Mr. Withers, through a friend, for an abstract of his lecture.

*Surrey.*—We referred to the bricks at Sutton Place in p. 126.; and we find the following mention of them in the *Gentleman's Magazine*, vol. i. new ser. p. 498., which we consider valuable, as confirming our opinion both of their beauty and their durability:—"Sutton Place presents the finest specimens, perhaps, extant of the stamped and baked clay of the fifteenth century, formed into huge bricks 14 in. long by 9 in. wide, and  $3\frac{1}{2}$  in. thick; and also into coins, mullions, weatherings, &c., all of which are impressed with their proper



mouldings; and the cavettos enriched with a tracery of running foliage, and other appropriate ornaments. The bricks are marked alternately with R W; and with a tun and bunches of grapes, within borders of Gothic ornament. A rebus for Richard Weston is evidently intended. The colour of this brick or artificial stone is excellent, a light warm ochre, resembling Caen stone. The material is of a close texture, and rendered extremely hard by the fire of the kiln. Time has made little or no impression on it. The effect of the minarets on either side the hall-door, composed of this brick, and of the coins and parapet of the building, is exquisitely rich; and, in any edifice of the period that has yet come under my notice, unrivalled."

*Sussex. Brighton.* — There are a variety of things in this hotbed of trickery and favouritism that would startle you were I to name a tithe of them in one epistle; nay, which would rouse the ire and indignation of every true lover and professor of architecture and the building arts. You shall be furnished hereafter with the particulars of a job that was concocted here, between three and four years ago, which was a complete architectural robbery. An invitation was given to architects to furnish designs for a public building (offering a premium, &c.), that was restricted not to cost more than from 12,000*l.* to 13,000*l.*; and the design (out of from sixty to seventy that were submitted) of a favourite was selected, that ultimately cost the town between 30,000*l.* and 40,000*l.* The building consequently erected is now one of the most villainous monuments, of good materials and workmanship thrown together pell-mell, that ever disgraced this or any other age.\* — *F. Brighton, April, 1834.*

*The Church at Hove.* — A letter on this subject appeared in the *Brighton Herald* in March last, a copy of which has been sent us; and from it we make the following abridgment: — "Mr Basevi, architect of London, and son of Mr. Basevi, a resident in Hove parish, Brighton, offered, at a parish meeting, on Sept. 20. 1833, to furnish plans gratuitously for rebuilding the church of Hove on its own foundation. Of course, this offer was accepted; and he was consequently appointed architect to the church. Notwithstanding this, at a subsequent meeting, in Feb. 1834, Mr. Basevi, sen., endeavoured to get some compensation voted to his son for these plans; and this the writer of the letter alluded to considers not in accordance with fair dealing on the part of Messrs. Basevi towards the parish; and, on the part both of the parish and of Messrs. Basevi, towards professional men in general: the gratuitous offer of the plans having, no doubt, influenced the parish in choosing their architect. The letter in the *Brighton Herald* is signed Fair Play; but the writer of it has authorised us to give his real name and address: viz., *S. H. Benham. Brighton, April 14. 1834.*

*Yorkshire.* — *Leeds Court House* is undergoing considerable alterations and improvements, from the designs and under the immediate superintendence of our talented townsman, R. D. Chantrell, Esq. — *A Young Architect. Leeds, May 5. 1834.*

*Hull.* — *A Memorial in honour of the late Mr. Wilberforce* is about to be erected in this place; for which a design has been submitted, by Mr. Clarke of Leeds, that has been approved of. It is a column, at the top of which will be a statue of the philanthropist: the height of the whole is to be 100 ft. — *Id.*

*Huddersfield Parish Church.* — This ancient edifice is about to be rebuilt in the perpendicular Gothic style, with crypt and buttresses, from designs by Mr. J. P. Pritchett, architect, of York. The cost of rebuilding will amount to nearly 3000*l.* — *Id.*

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\* We admit this sentence, for the sake of protesting against the use of expressions similar to those contained in it, without assigning reasons. All such modes of condemning any object go for nothing with us, because they afford no proof that the party using them is any judge. Let our correspondent give us the name of the building, and state his reasons in detail for disapproving of it. — *Cond.*

## SCOTLAND.

*Edinburgh Society of Arts.*—By *Jameson's Journal* for April, 1834, we find that a number of interesting communications, on architectural subjects, were laid before this very useful Society during the months of January and February, 1833. Among these are, an Improved Ventilating Warm Air Stove, by Mr. Symington, of Kettle, Fife; on constructing Public Buildings in relation to the Theory of Sound, &c., by Mr. Wm. Reid, architect, 27. Charlotte Street, Glasgow; Model and description of a Window calculated to insure the safety of Glaziers and Painters, by Mr. Rutherford, sievemaker, Haddington; description of an accurate and cheap Air Pump, by Mr. Dunn, 50. Hanover Street, Edinburgh. If this instrument could be rendered available for exhausting air in an apparatus for cooling wines, water for drinking, butter, &c., so as to supersede the use of ice, it would be most valuable; we have no doubt that such an instrument will shortly be invented, and made so cheap as to be within the reach of every family. It would add much to our domestic comforts, especially in the south. An Essay on the Causes of Obstructions in Water Pipes, by J. S. Hepburn, Esq., promises to be valuable, as does another by Mr. Davidson, 123. High Street, Edinburgh, on the Use of the Siphon for draining marshes, mines, lakes, &c. Lastly, a model and description of a Chimney Pot for preventing the return of smoke, occasioned by downward currents, by Mr. Shillinglaw, 5. Cheyne Street, Stockbridge. We do not know whether it is the intention of the Society to publish these papers and others; but if it is not, and if it were consistent with the rules of the Society, we should be very glad to receive notices of them for publication. These notices would be best made out by the authors of the papers; but we have no wish that they should do so, if it at all interferes with the views of the Society.

*Mr. Perkins's Mode of heating by Hot Water* seems to be making rapid progress in Edinburgh. Besides churches, manufactories, warehouses, &c., which he has already heated, it is reported that the Register Office will soon be added to the number. We also hear that Lord Corehouse, a man of great taste, who employed Mr. Blair as an architect to design a mansion in a romantic situation on the borders of the Clyde, and our correspondent, Mr. Main, to lay out his grounds, has sent for Mr. Perkins.

## ART. III. Retrospective Criticism.

*ADVANTAGES of a Taste for Architecture.*—I daily feel the truth of an opinion you express in your Introduction (p. 3.), that a taste for architecture is most desirable for the possessor, because it is so easily indulged in. A person possessing this taste can scarcely go any where without having it gratified, and at no expense; whereas a taste for paintings, sculpture, &c. can seldom be satisfied without a large expenditure. I think the Magazine will have the same effect, with respect to architecture, that the *Gardener's Magazine* has had with respect to gardening; viz., it will diffuse a general knowledge of the subject, and draw attention to it: if it have this effect, it will do a world of good in various ways; for it is surprising how few have any knowledge of architecture, except those who follow it as a profession. Mr. Bennet, M. P. for Wilts, is the only gentleman I have heard of, in this part of the country, who has a good practical knowledge of building. He designed the stables at Stockton House, which are in the old English style, and do great credit to his taste. — *Selim. Wiltshire, April 28. 1834.*

*The Architectural Magazine, No. II.*—The stoves mentioned, p. 74., remind me of a tale I heard many years ago, about the stoves of an amateur named Ledsam, who lived, I believe, in a midland county, some sixty years since. These stoves were contrived so as to serve two rooms; for, by being placed in the partition wall, and turning upon a pivot, they could instantly be ap-

plied to either room. Sometimes one side of the stove had a fire in the grate, and the other (as is usual in the summer season) was filled with a bouquet of flowers. For the sake of amusement, Mr. Ledsam would divert his friend's attention from the fire for a moment, and, when they turned their eyes again, they beheld the flowers, instead of the fire, and *vice versa*. He had also a trap on the table, in the vestibule, to detect dishonest visitors: a half crown lay on the table, and appeared very easy to filch, but the moment it was touched, an iron hand started up, and grasped the thief round the wrist, like a handcuff. — I fancy I could contrive a simpler wood railing than Mr. Cottam's, and yet fulfil all the requisite stipulations. — The practical graziers and cattle drovers here are opposing the *abattoirs* (p. 90.), or rather the removal of the Smithfield market, tooth and nail. The consumer could decide the matter, by giving the sixteenth part of a farthing per lb. more for country-killed meat. Depend upon it, as soon as railroads are common, nothing else will appear in London. [We hope that, if this should not be the case soon, *abattoirs* will be erected all round the town, to prevent the necessity of driving cattle through it either to the Islington abattoir, or to Smithfield.] — I hope to see in one of your early Numbers a sketch of the tackle used in hoisting the Duke of York's statue to the summit of the pillar in Carlton Gardens. [See p. 195.] A very curious exploit of this sort is described in the *United Service Journal* for February last. It recounts the very simple means used by Captain Lloyd, and his companions, to ascend the peak of a mountain in the West Indies, which never had been ascended before. — You would serve architecture very much by getting up petitions to take off the *double* duty now charged for ornamental bricks. Mr. Pease is trying to get the whole off, but it cannot be afforded at present. I fear the duty on bricks is a sad tax on rural labour. The double duty does not produce much revenue, but acts like a prohibition against the use of ornamental bricks.

Your Sheffield correspondent (p. 99.) may say what he pleases about what has "gone under the name of engineering." It recalls to mind a case which came under my own experience. A schoolfellow of mine, after being articulated five years with the great Sir Jeffery Wyatt, came to spend a week with me, about the time the London Bridge plans were in agitation. "Why don't you try for the Bridge?" says I. "So I will," says he, "if you'll build the foundation." This affords the true clew to the reason why engineers are called in to build bridges, docks, &c. As the world goes now, the best way is to acknowledge engineering and architecture as two distinct professions, and to employ professors of both where first-rate works are required. — *W. T. Norwich*, April 21. 1834.

*Ventilation of Living-Rooms.* — I consider that the ventilation of living-rooms is of great importance, and have long desired to be acquainted with an efficient and economical mode of accomplishing it. I do not, however, think that Mr. Milne, in his article (p. 64.), has disclosed the desideratum. Suppose that four persons are spending an evening together in a room ventilated by his method, and five more at once join them; the air of the room becomes more heated and rarified, the damper of the ventilator is raised, and its doors partially closed; and, consequently, the change of the air of the room goes on less rapidly, when circumstances require that it should go on more so. For bedrooms no better method of ventilation, I believe, can generally be adopted than that of keeping open the sashes a little at top and bottom; a practice I have been in the habit of following for more than twelve years, and which, when judiciously managed, I never found injurious to either delicate females or infants, when they are in tolerable health. On the contrary, I have no doubt that it is beneficial to every one, as compared with the too general practice of sleeping in close rooms; especially if the bed curtains are drawn close also. We much want some complete mode of ventilation, which in winter should be combined with warmth, so that the air from without, which takes the place of that which escapes, should not enter the apartment at too low a temperature; and in summer it ought perhaps to be united with some

drying process, because the night air at this season is frequently charged with an unhealthful degree of moisture. — *G. Dymond, Architect. Bristol, April, 1834.*

*The alleged Deceptions practised by Architects.* — In p. 117. there is an article "On certain deceptive Practices adopted by some Authors of Architectural Designs for Villas. By an Observer;" in which, though there is a good deal of truth in some of the remarks, there still appears to me to be much overstatement, and not a little absurdity.

Your correspondent commences with reprehending the custom of "accompanying architectural designs with landscapes, so as to form pictures." Now, would he think it an unfair thing of the proprietor of the house, if, after its completion, he was, for the purpose of giving a distant friend an idea of his new abode, to send him "a picture" of it as it really existed, with the accompanying landscape correctly shown, so as to display the fitness of the building to its situation? Would he have him represent his villa, which he had surrounded with every thing that the taste of the architect and landscape-gardener could devise to render its situation picturesque and delightful, as an isolated mass, midway betwixt heaven and earth, without ground for it to stand upon, without clouds to overshadow it, and without trees or shrubs to surround it? and this merely to avoid *making a picture* of what he was labouring to render picturesque; or attracting his friend's "eye to the effect of the whole, instead of the effect of the building;" when he had been spending his time and his money in making the whole beautiful, when the architect had been employing his talents in rendering the building suitable to the ground, and the landscape-gardener (if not identical with the architect) had bent all his endeavours on rendering the ground still more suitable to the building? Your correspondent would surely not wish him to act so absurdly. Yet in what essential point does this imaginary case differ from the case in point? In the one case, the gentleman gives his friend a representation of the villa *as it is*; and, in the other, the architect gives the gentleman a representation of it *as it is to be*. The only difference is, that the one is a present, and the other an anticipated, representation: and, if the latter is an unlawful thing, the architect must close his office, and lay by his square and his compass; he may form his design in his head, and give verbal descriptions of it to the employer and the workman, but for the future he must scrupulously avoid putting pencil to paper, for fear of returning to the deceptive practice of drawing what does not exist.

What your correspondent seems, on this head, most to fear, is, that the architect may be "a clever artist;" and therefore able, "by lights and shadows, and by introducing forms in the trees and ground, to contrast with those of the building," to make "the most indifferent building appear handsome! But if the architect be so clever an artist, and if he have so accurate a knowledge of the effect of light and shade (the very essentials of architecture), he can surely exercise his talents as well on the structure itself, as on the mere representation of it, and may be able to render it something more than a "most indifferent building;" and, if he be so admirable a landscape-gardener, he can certainly produce the effects in execution which he has so successfully imitated in painting.

Your correspondent next remarks, that he "he should no more think of ascertaining the merits of a building, either as a piece of architecture, or as a structure for a particular use, by observing it merely as a component part of a landscape, than he should think of becoming acquainted with the private character of an individual, by seeing him at a conversazione, or hearing him speak in parliament." Now, if he had said that he should not think of judging of its internal arrangement, by its effect as part of a landscape, there might have been some aptness in the similitude; but does he really mean to say that the situation of a building should not affect the design? That villas and town houses may change places without injuring the effect of either? The passage certainly implies this. Till, however, I find that villas are in the habit of visiting their city friends, that men of science take their houses with them to

conversazioni, and statesmen bring their country seats with them to parliament, I, for one, shall endeavour to suit my buildings to the situations I intend them for; trusting that they will remain stationary where I place them.

The next deception alluded to is that of giving a false idea of the projections and sinkings, by incorrect shadowing. This is certainly a very improper practice wherever it exists, though I should not have thought it likely to be very prevalent, from the little temptation which it seems to offer; as it certainly would have appeared to me that an architect who could not produce a good design, would not possess science enough to render this deception effective: but here I am set right by your correspondent, who informs us that "these deceptions will make the ugliest and most unscientific building look handsome!" I should presume that he grounds this charge upon some one case which has come under his notice, and that this is the case of the same misguided person alluded to under the foregoing head. If this be correct, the present instance exhibits, in a far more striking manner than the former, both the preeminent talents and the singular infelicity of that highly gifted, but most wayward and unfortunate, individual. In the former instance, by means of lights, shades, and surrounding scenery, he made an indifferent building look handsome; but, in this, he produces the same effect, on the ugliest and most unscientific building, by only a slight variation of the shadows. Surely no parallel case is on record! An architect who, by merely varying lights, shadows, and surrounding forms, can produce such magical effects; and yet, when he comes to attempt a design, produces nothing but what is of the "ugliest, the most unscientific," or at best, of the "most indifferent," character! — if such a man should, at any time, be brought to bend his talents on the actual building, which he has hitherto so strangely neglected, instead of prostituting them to the deceptive practices, in which he has met with such unprecedented, though mischievous, success, we may then expect from him nothing short of a masterpiece of art.

The practice of "darkening the tint of recesses" is not a deception at all, when done in an artistlike manner; and, when done badly, the architect is the sufferer by the deception. It is absolutely necessary, in a geometrical elevation, where the front and back parts are shown of equal height, to vary the tint in such a manner as in some degree to indicate the comparative distances of the parts; the greatest deception that could be practised would be to tint them all alike, so as to make them all appear as if on one face. Casting accidental shadows on plain parts, is a blamable practice, where it is calculated to convey a false idea of the building; but there are cases where, in execution, particular circumstances will prevent a part from being a prominent feature, which will not at all affect it in a geometrical drawing. In these cases, the practice alluded to may be very serviceable, and not unfair. The practice of imitating mosses, weather-stains, &c., is to be condemned, not on the ground of their being shown on "buildings not yet erected," for this reason would have equal force against making drawings of the buildings at all, but because it is representing blemishes and defects which, in execution, the architect would wish to avoid. If, however, the architect chooses to show creeping shrubs on a building where it is intended that such should be planted, he is by no means to be blamed.

In most of your correspondent's remarks on chimney shafts I quite agree with him. In the Gothic, Italian, or even Grecian styles, they may be rendered far from unpleasing; but still, if the architect finds that they will interfere with his design, he is no more to be blamed for concealing them, than for hiding the roof by a parapet, brickwork with stucco, or deal with wainscot or mahogany graining. The practice of not showing them in the drawing, when they will appear in execution, is certainly reprehensible; but there are many cases where, their introduction being injurious to the composition, the architect has, with much pains and management, contrived to gather over the flues into a back part of the building, where they will not at all form part of the principal design, but where, in a geometrical drawing, they would show as high

as if they were in front : in these cases they are very fairly omitted in the drawing of an elevation to which they do not belong. This may be the case with the design adduced.

I will trespass no farther than to apologise for having made my remarks so lengthy ; but I think, when your correspondent is at such pains in raking together charges against the profession, it is but fair to allow architects to defend themselves. — *G. G. S. London, May 10. 1834.*

*Mr. Austin's Chimney Pots and Shafts.* (p. 159.) — In this article, you have introduced some ornaments among the chimney shafts, that were not intended for such ; and, fearing that they may meet the eye of those by whom they were designed, I think it should be remarked they were not intended to be used as chimney pots by me. Fig. 74, p. 160, is a sundial pillar ; figs. 77. and 79. are oriental vases, modeled expressly for the new grand Pantheon Bazaar, under the immediate direction of Sidney Smirke, Esq., architect ; fig. 87. is a pedestal designed for one of the principal rooms in Ironmongers' Hall ; and fig. 89. is an enriched Gothic font or pedestal, restored from an example in Henry VII.'s Chapel. It should also be observed, that the chimney shafts are drawn to a scale of a quarter of an inch to a foot, and the other ornaments to a scale of half an inch to a foot, except fig. 69., which is to a larger scale, being the smallest-sized chimney pot made. — *Felix Austin. Artificial Stone Works, New Road, Regent's Park, June 7. 1834.*

*Durability of Austin's Artificial Stone.* — With regard to the durability of my artificial stone, you say (p. 159.) that I "consider it very nearly, if not quite, as durable as Portland stone." Now, I beg most confidently to assert, that I consider it *more durable, and considerably superior* to Portland stone ; having for several years made fountains and reservoirs of large dimensions that have withstood the severest winters, and having had basins in my own yard, where the water contained in them has been frozen into solid bodies of ice, which have not sustained the least injury. The only precaution necessary, is that of breaking a hole in the surface of the ice, and the reason for this is evident ; for as the water, when transformed into ice, occupies more space, and the surface, when frozen, does not allow the water below it to expand, if a vent in this or some other way were not afforded to it, it must necessarily break the vessel. The hole in the surface of the ice, by affording the water an opportunity of escaping through the aperture (which must be occasionally reopened), prevents the vessel from bursting. That water does escape through the hole in the surface will appear from the little hillock of ice that forms itself round the aperture. — *Id.*

#### ART. IV. Queries and Answers.

*PLATE-WARMER.* — Have you seen the following very great improvement on the common plate-warmer ? If you have, as you study comfort, I think you will approve it. It appears to be a pedestal for a bust to stand upon ; but, when opened, is found to be lined with tin, with shelves for plates, and a place at the bottom for a heater. The effect is much superior to the usual ingenious mode of hiding a fire from everybody at dinner. There is one objection ; and that was, when I saw it, that there was a smell of burning wood : but this I attributed to the newness of the timber of which it was constructed. At any rate, your correspondent, Mr. Mallet, might produce a very elegant piece of furniture for the purpose in cast or wrought iron. — *Thos. Wilson. Banks, near Barnsley, Jan. 18. 1833.*

*Concrete for Foundations.* — Amongst the numerous plans which have been adopted for securing the foundations of buildings, this appears now to occupy a prominent place. I should feel obliged if any of your correspondents would inform me of the proportions of materials, and what is considered as the best to use. — *Investigator. Kent, June 6. 1834.*